

Claims:

1. An apparatus for the delivery of electrical waveforms comprising an electrode array having at least three individually addressable electrodes disposed so as to form a triangle in a plane intersecting said electrodes.
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2. An apparatus as recited in claim 1 wherein the electrodes are elongate.
3. An apparatus as recited in claim 2 wherein the elongate electrodes are
10 oriented in approximately parallel directions.
4. An apparatus as recited in claim 1 wherein the triangle is of approximately equilateral geometry.
- 15 5. An apparatus as recited in claim 1 wherein each of said electrodes comprises an electrically conductive region and an electrically nonconductive region.
6. An apparatus as recited in claim 1 wherein said array comprises at least four electrodes disposed so as to form two interconnected triangles in a plane
20 intersecting said electrodes.
7. An apparatus as recited in claim 1 further comprising means for delivering an electrical signal to each of said electrodes so as to generate electrical waveforms between said electrodes.
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8. An apparatus as recited in claim 7 wherein each of said electrodes is capable of independent activation by said electrical signals.

9. A system for the delivery of electrical waveforms to a patient comprising an electrode array having at least three individually addressable electrodes disposed *in situ* in a patient so as to form a triangle in a plane intersecting said electrodes.

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10. A system as recited in claim 9 wherein the electrodes are elongate.

11. A system as recited in claim 10 wherein the elongate electrodes are oriented in approximately parallel directions.

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12. A system as recited in claim 9 wherein the triangle is of approximately equilateral geometry.

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13. A system as recited in claim 9 wherein each of said electrodes comprises an electrically conductive region and an electrically nonconductive region.

14. A system as recited in claim 13 wherein the electrically conductive region of said electrodes and the geometry of said array define a predetermined treatment area for said patient.

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15. A system as recited in claim 9 wherein said array comprises at least four electrodes disposed so as to form two interconnected triangles in a plane intersecting said electrodes.

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16. A system as recited in claim 9 further comprising means for delivering an electrical signal to each of said electrodes so as to generate electrical waveforms to the predetermined treatment area.

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17. A system as recited in claim 16 wherein each of said electrodes is capable of independent activation by said electrical signals.

18. An apparatus for the delivery of electrical waveforms comprising an electrode array having at least four individually addressable electrodes disposed so as to form a plurality of triangles in a plane intersecting said electrodes wherein each such triangle shares a common side with an adjacent triangle.

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19. An apparatus for the delivery of electrical waveforms comprising an electrical waveform generator which generates waveforms of sufficient intensity and duration so as to increase the permeability of a biological cell membrane subjected to said waveform; and

10 an electrode array operatively connected to said generator and having at least three individually addressable electrodes disposed so as to form a triangle in a plane intersecting said electrodes.

20. An apparatus for the delivery of electrical waveforms comprising an electrical waveform generator which generates waveforms of sufficient intensity and duration so as to increase the permeability of a biological cell membrane subjected to said waveform; and

15 an electrode array operatively connected to said generator and having at least four individually addressable electrodes disposed so as to form a plurality of triangles in a plane intersecting said electrodes and wherein each such triangle shares a common side with an adjacent triangle.

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21. An apparatus as recited in claim 20 wherein, in each electrode triangle a single primary electrode is in electrically conductive communication with two secondary electrodes.

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22. An apparatus for the delivery of electrical waveforms comprising an elongate electrode comprising:

means for connecting said electrode to a source of electrical signals,
an electrically conductive region located distal to said connecting means,
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an electrically nonconductive region located proximal to said connecting means.

23. An apparatus for the delivery of electrical waveforms comprising an 10 electrode array having at least three individually addressable electrodes according to claim 22 which are disposed so as to form a triangle in a plane intersecting said electrodes, whereby the disposition of the electrodes and the electrically conductive regions of the electrodes determine a three-dimensional region wherein the electrical waveforms propagate an electric field therebetween.

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24. A system for the delivery of electrical waveforms to a patient comprising an electrode array according to claim 23 disposed *in situ* in a patient so that a three-dimensional region of tissue is established wherein the electrical waveform propagate an electric field substantially confined to said region.

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